



Nano  Plore

Performance Through Carbon Chemistry

**5-Year
Strategic
November
2022 Plan**

FORWARD-LOOKING STATEMENTS

This presentation contains express or implied forward-looking statements, which are based on current expectations of management. These statements relate to, among other things, our expectations regarding management's plans, objectives, and strategies. All statements other than statements of historical fact could be considered forward-looking, including, but not limited to, any projections of financial information; any statements about historical results that may suggest trends in our business and results of operations; any statements of the plans, strategies and objectives of management for future operations, including the timing, funding and construction of planned manufacturing facilities and sales offices; any statements of expectation or belief regarding future events, potential markets or applications, the sizes of addressable markets, expected technology developments, strategic partnerships and collaborations, or enforceability of our intellectual property rights; any statements about the projected or expected economic or other benefits of our products compared to petroleum-derived equivalents, future sales and any statements of assumptions underlying any of the foregoing.

Forward-looking statements are subject to a number of risks, assumptions and uncertainties, many of which involve factors or circumstances that are beyond our control.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the events and circumstances reflected in the forward-looking statements will be achieved or occur and the timing of events and circumstances and actual results could differ materially from those projected in the forward-looking statements. Accordingly, you should not place undue reliance on these forward-looking statements. All such statements speak only as of the date made, and we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise.

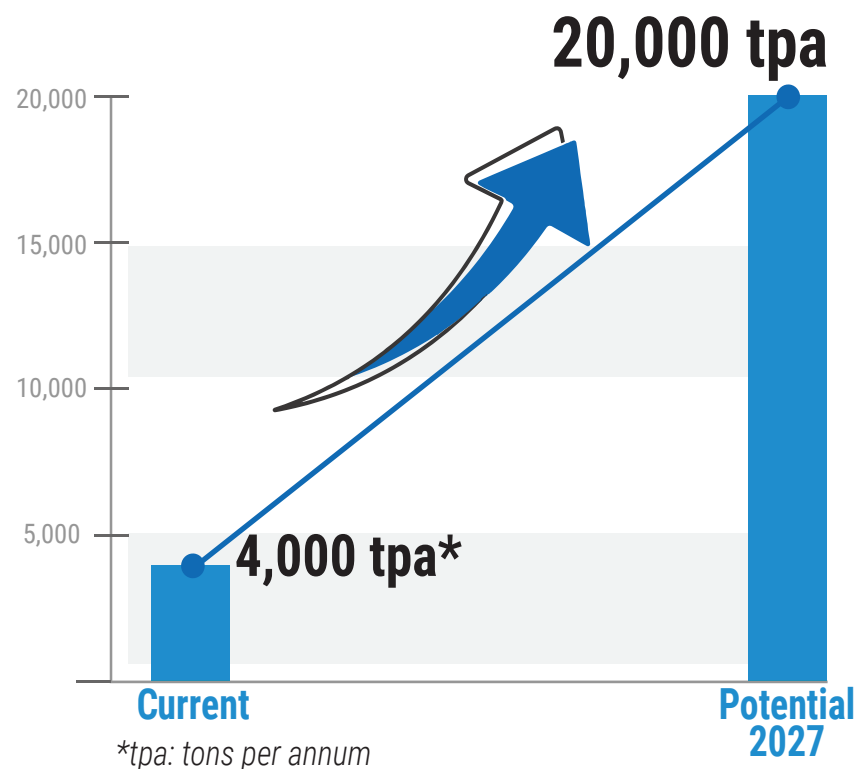
Trademarks

Our trademarks may not be copied, imitated or used, in whole or in part, without our prior written permission. Other trademarks, registered trademarks or logos, company names or logos displayed in this presentation are the property of their owners.

CAPEX INVESTMENT PLAN SUMMARY

- Over the next 5 years, our strategic plan will be to develop our leadership position in large, growing, and promising end-markets:
 - Battery Materials
 - Lightweighting composites
 - Speciality Compounds
- Investing \$120M to increase graphene & battery materials capacity by 16,000 tpa and benefit from EV and graphene adoption
- Investing \$50M to increase Sheet Molding Compound (SMC) capacity by 10M lbs and benefit from increased demand for lightweighting solutions
- Enabling the energy transition and sustainability megatrends
- In total, NanoXplore will invest \$170M over the next 5 years with a combination of cash on hand, grants, debt, and equity

Nameplate Capacity



COMPANY BACKGROUND



About us

We are a **fully integrated graphene supplier** to various customers in transportation, packaging, pipe, film, electronics, and other industrial sectors. We are headquartered in Montreal, Quebec with manufacturing facilities across North America and Europe



10 production plants



~500 employees



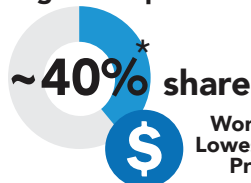
Capabilities



Fully Automated Facility

According to IDTechEx*

Largest Graphene Producer



Worldwide Lowest Cost Producer



Proprietary Technology

We own our innovative, **patent-protected graphene manufacturing technology** that provides a significant cost-effective solution to our customers



Globally Registered



Credible & Supportive Shareholders

- Martinrea International Inc. (MRE: TSX)
- Caisse de dépôt et placement du Québec
- Investissement Québec
- Fidelity
- Business Development Bank of Canada



Strong IP & Know-how

We own a **strong IP portfolio and know-how through years of R&D development** in adding graphene to current Li-ion chemistries that improves energy capacity and charging speeds



High Quality & Consistency

We pride ourselves on the quality and consistency of our branded GrapheneBlack™ powder



GRAPHENEBLACK™

OUR SOLUTION

We leverage our **patented technology**



GRAPHENEBLACK™
A Product of nanoXplore

to provide **sustainable** alternative



Graphite

Natural flake graphite
(>100,000 layers of carbon)

EXFOLIATION

via a mechanical-liquid
proprietary process



Graphene

6-10 atomic layers
in thickness with 96-98% purity

CLEAN TECHNOLOGY

High
Volume

Low
Cost

Environmentally
Friendly

POWERING 2 KEY GLOBAL MEGATRENDS

Our vision is to create a better tomorrow by providing innovative, sustainable products and solutions across multiple industries and applications



ENERGY TRANSITION



GRAPHENEBLACK™
A Product of NanoXplore



↓~80%
Carbon footprint
vs. OTHER SOLUTIONS

SUSTAINABILITY



THE POTENTIAL EVOLUTION AS A LEADING GRAPHENE PRODUCER



THE SET-UP PHASE 1

2017-2022

**DE-RISKED &
POSITIONED FOR SUCCESS**



- ✓ Strengthened our balance sheet
- ✓ Positioned our company as a leading industrial scale graphene producer
- ✓ Successful at lowering our cost per unit to improve adoption



OUR PLAN PHASE 2

2023-2026

**CAPEX
EXECUTION**



- \$120M graphene and battery materials plant
- \$50M GrapheneBlack SMC™ (Sheet Molding Compound) plant



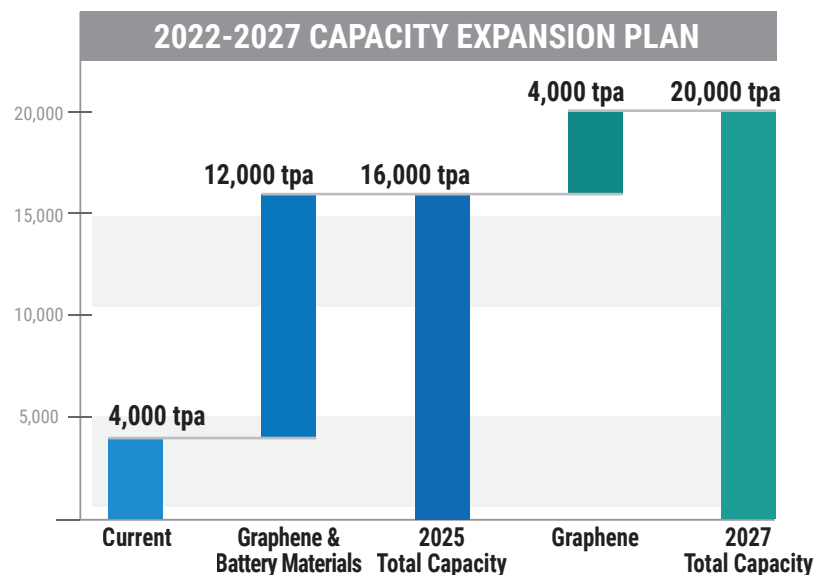
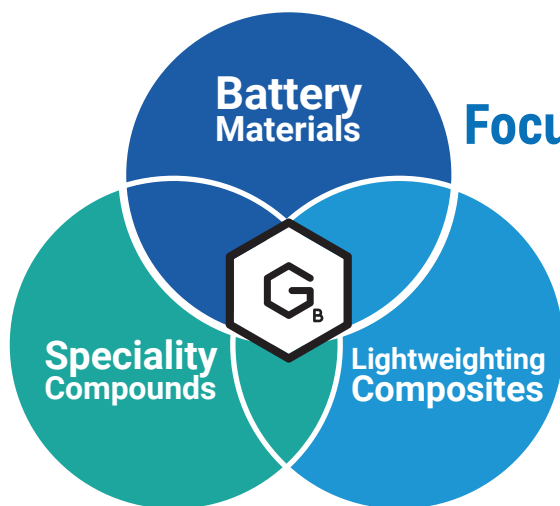
OUR VISION PHASE 3

2026+

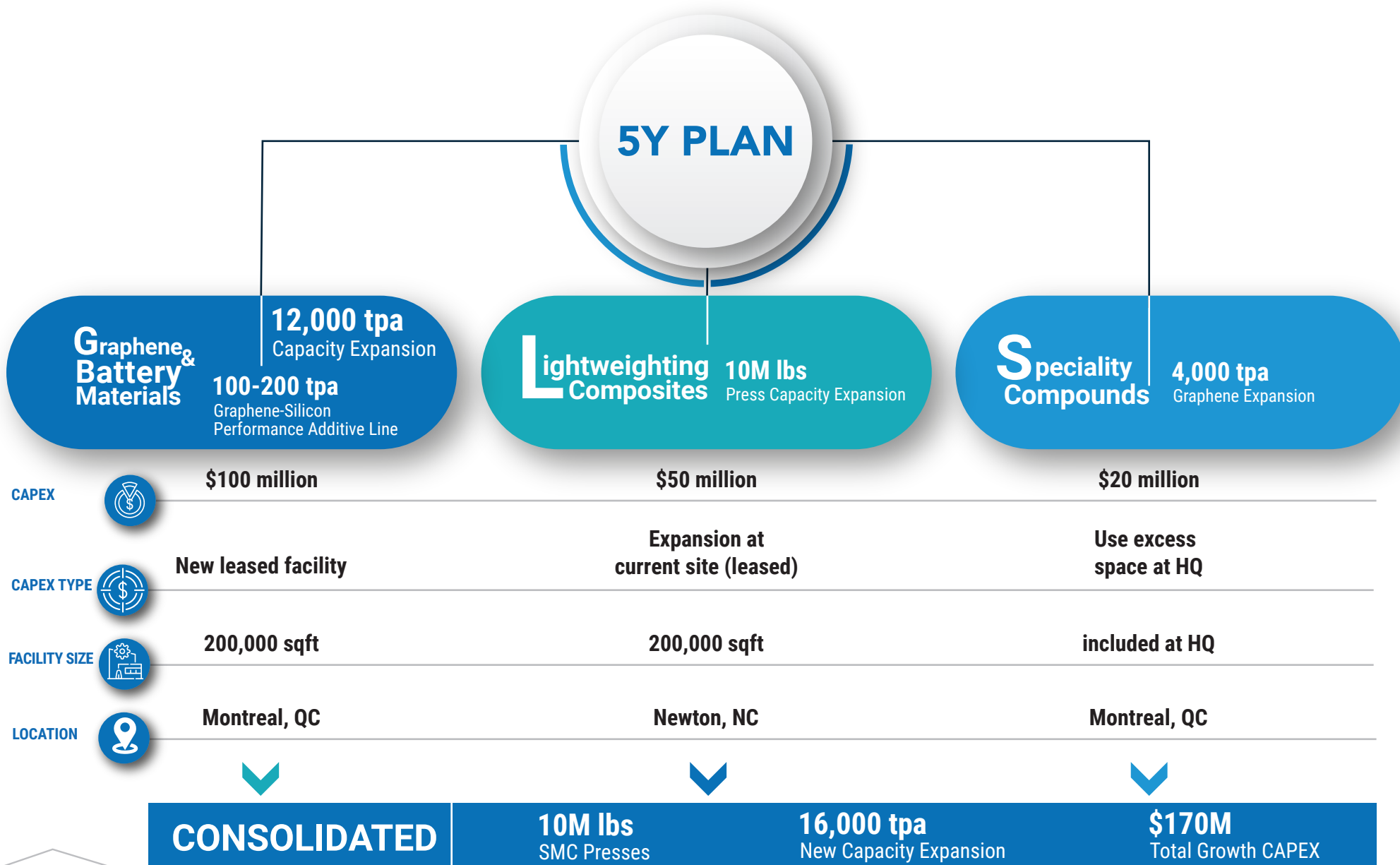
**GROWTH &
POSITIVE YIELDING RESULTS**



- Benefit from our investments
- Focusing on sustainability and energy transition
- Bring new applications to graphene
- Extending our battery materials initiatives



CAPEX SUMMARY OF 5Y PLAN



BATTERY MATERIALS - EXECUTIVE SUMMARY



- EV Adoption
- Energy Transition/
Sustainability
- Inflation Reduction Act
- IoT Adoption/Electronic
Devices

KEY DRIVERS



- Anode Active Material
- Anode Performance
Additive (Gn + Si)
- Cathode Conductive
Additive

TARGETED PRODUCTS



700GWh*
by 2031

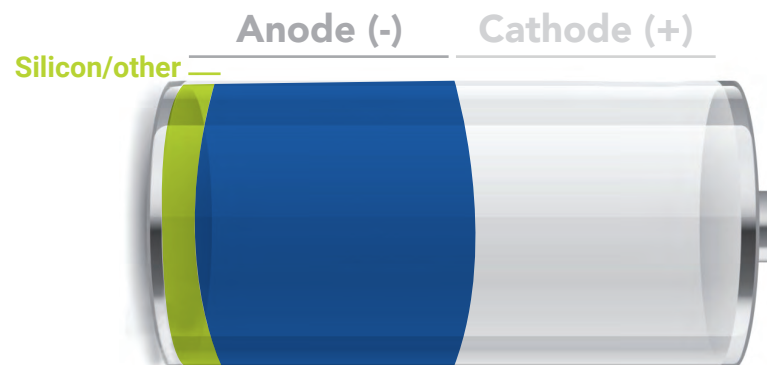
Capacity needed
of anode active material

700ktpa

MARKET SIZE

NORTH AMERICA
RAMPING UP CAPACITY

BATTERY MATERIALS - NANOXPLORE VALUE PROPOSITION



Anode:



Enhanced capacity
versus other anodes



Enhanced conductivity resulting
in faster charging time



More consistent anode performance
in hot and cold temperature versus
already existing anodes



Improved safety due to
enhanced heat dissipation
properties

BATTERY MATERIALS - CAPEX & RETURNS

ASSETS:

- **12,000 tpa** graphene and battery materials facility
- **100-200 tpa** graphene-silicon line
- R&D Facility

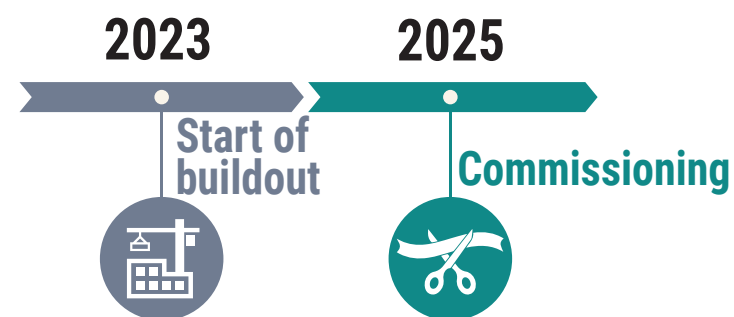
CAPEX: \$100 million

POTENTIAL ANNUAL REVENUE: \$100 million

IRR: 25%+

REASONS TO INVEST/STRATEGY:

- Large and growing addressable market
- Strong fundamentals with undersupplied market
- Attractive returns
- Flexible manufacturing process



LIGHTWEIGHTING COMPOSITES - EXECUTIVE SUMMARY



- EV Adoption
- Sustainability
- Transportation industry CO₂ Reduction Regulations

SMC KEY DRIVERS

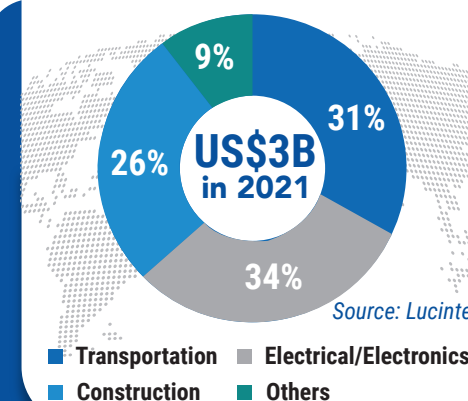


Transportation
External parts of vehicles
Battery enclosures



Construction
Commercial and
Residential Applications

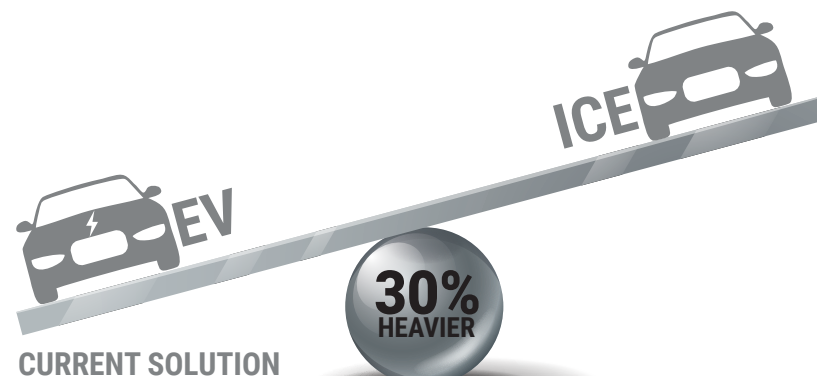
TARGETED VERTICALS



SHEET MOLDING COMPOUND GLOBAL MARKET SIZE

LIGHTWEIGHTING COMPOSITES - NANOXPLORE VALUE PROPOSITION

Stronger, Lighter, Higher Quality Parts Using



**LIGHTWEIGHTING IS A
PRIORITY** FOR OEMs

up to
25%
Lightweighting
Potential



Sustainability &
Reduced
Emissions

Lower
Painting Cost



LIGHTWEIGHTING COMPOSITES - CAPEX & RETURNS

ASSET: 10M lbs SMC facility

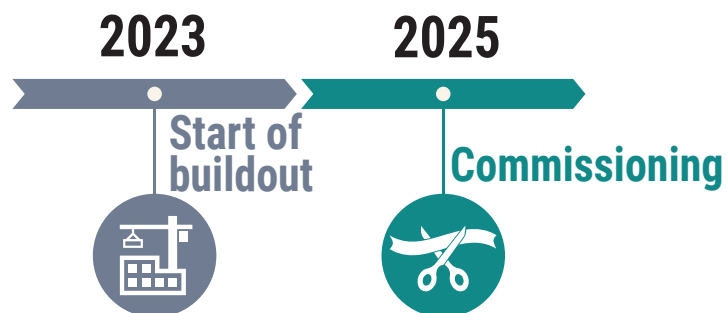
CAPEX: \$50 million

POTENTIAL ANNUAL REVENUE: \$80 million

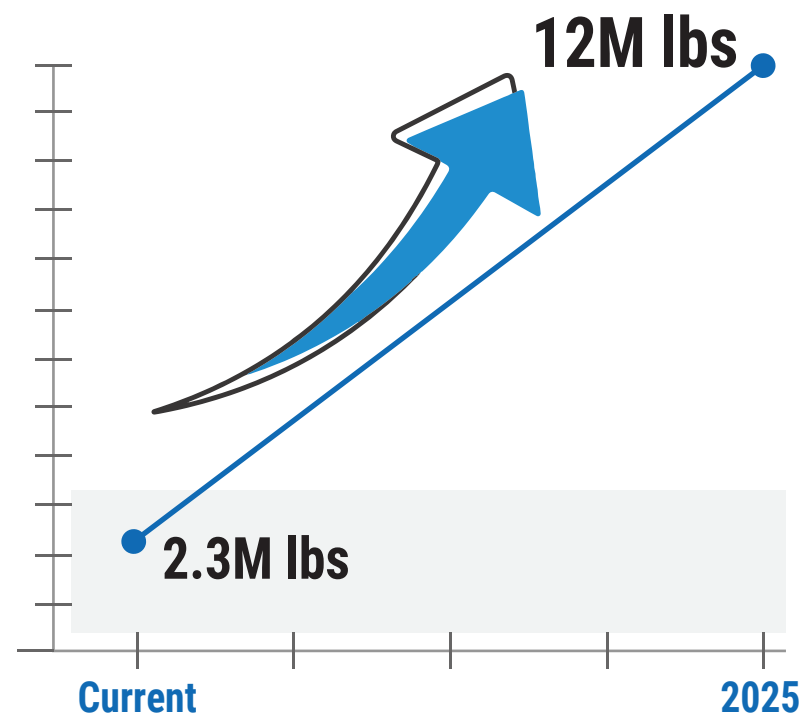
IRR: 25%+

REASONS TO INVEST/STRATEGY:

- Large and growing addressable market
- Attractive EV adoption market
- Undersupplied market
- Further capacity expansion potential (organic and/or inorganic)



SMC Nameplate Capacity



SPECIALITY COMPOUNDS - EXECUTIVE SUMMARY



- Sustainability
- Market Penetration
- Low-Cost Alternative

GRAPHENE KEY DRIVERS



- Concrete
- Polyurethane (PU) Foam
- Drilling Fluids
- Polyethylene (PE)/
Polypropylene (PP)
Compound

TARGETED VERTICALS

SPECIALITY COMPOUNDS - NANOXPLORE VALUE PROPOSITION

VALUE PROPOSITION

GRAPHENE
ADDRESSABLE MARKET SIZE

Concrete



CO2 EMISSION



COST SAVINGS



PERFORMANCE & DURABILITY

6,000 ktpa¹

Drilling Fluids



FASTER DRILLING SPEED



EXTENDED TOOL LIFE



REDUCED FLUID LOSS

256 ktpa²

PU Foam



BETTER THERMAL INSULATION



FLAME RETARDANCY



SUSTAINABILITY

170 ktpa³

PE/PP Compound



MORE RECYCLABLE PLASTIC



MECHANICAL PERFORMANCE



COST REDUCTIONS

90 ktpa⁴

1- The Graphene Council & NanoXplore

2- Fortune Business Insights & NanoXplore

3- MarketsandMarkets & NanoXplore

4- MarketsandMarkets, PPI, Straits Research & NanoXplore

SPECIALITY COMPOUNDS - CAPEX & RETURNS

ASSET: 4,000 tpa GrapheneBlack™ module (in addition to existing 4,000 tpa)

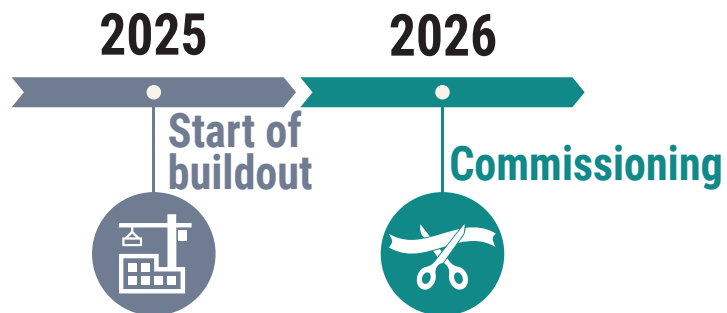
CAPEX: \$20 million

POTENTIAL ANNUAL REVENUE: \$40 million

IRR: 40%+

REASONS TO INVEST/STRATEGY:

- Narrowing the scope to focus on highest probability of success applications
- Focus on applications with large graphene powder consumption
- Increase return on R&D





Performance Through Carbon Chemistry

4500 Thimens Blvd, Montreal, QC H4R 2P2

www.nanoxplore.ca

TSX: GRA | OTCQX: NNXP

Follow us

